

What is claimed is:

1. A multi-program track and trolley apparatus for a movable wall system having multiple wall panels supported by and movable along multiple paths defined by multiple track sections to predetermined configurations, the apparatus comprising:

a plurality of track sections;

a switch assembly at a junction between track sections defining a first path along one track section and at least second and third paths along at least two other track sections branching from said first path, said switch assembly including an upper plate portion;

at least one guide member mounted on said switch assembly along said first path, said guide member being laterally offset relative to said first path; and

at least two trolleys attached to and supporting each wall panel of the movable wall system, each of said trolleys including a U-shaped channel having a transverse base portion and a pair of opposite upstanding sidewall portions, said sidewall portions defining a pair of axle bores therethrough for receiving a pair of axles, each said axle including a pair of wheel assemblies rotatably mounted thereon for rolling engagement with said track sections, a connecting element downwardly extending from said base portion, said connecting element being configured to connect said trolley to one of the wall panels, and at least one diverter element for selectively engaging said at least one guide member as each of said trolleys travels along said first path to route the supported wall panel along either said second or said third paths.

2. The track and trolley apparatus of claim 1 wherein said guide member includes a guide plate downwardly extending from said upper plate portion.

3. The track and trolley apparatus of claim 1 wherein said at least one diverter element includes a blade portion disposed above said wheel assemblies.

4. The track and trolley apparatus of claim 1 wherein each of said trolley has a centerline in the direction of movement of said trolley along said track and said at least one

diverter element is laterally displaced relative to said centerline between an outermost position and an innermost position.

5. The track and trolley apparatus of claim 4 wherein said at least one diverter element is a side diverter element.

6. The track and trolley apparatus of claim 3, wherein:
said at least two trolleys includes a lead trolley and a trailing trolley and said diverter blade on one of said lead or trailing trolleys is taller than said diverter blade on the other of said lead or trailing trolleys; and
said guide plate has a height sized to be engaged only by the taller of said diverter blades.

7. The track and trolley apparatus of claim 1, wherein:
said guide plate is disposed a first lateral distance from said first path; and
said at least two trolleys includes a lead trolley and a trailing trolley and said diverter blade on one of said lead or trailing trolleys is disposed at said first lateral distance, while said diverter blade on the other of said lead or trailing trolleys is disposed at a second lateral distance different from said first lateral distance.

8. A multi-program track and trolley apparatus for a movable wall system having multiple wall panels supported by and movable along multiple paths defined by multiple track sections to predetermined configurations, the apparatus comprising:

at least one switch assembly at a junction between track sections defining a first path along one track section and at least second and third paths along at least two other track sections branching from said first path said at least one switch assembly including an upper plate portion;

a plurality of guide members mounted on said at least one switch assembly along said first path, said guide members being laterally offset relative to said first path at different lateral distances relative to each other; and

a plurality of paired trolley assemblies, each pair of said plurality of paired trolley assemblies attached to and supporting different wall panels of the movable wall system, each of said trolley assemblies including a U-shaped channel having a transverse base portion and a pair of opposite upstanding sidewall portions, said sidewall portions defining a pair of axle bores therethrough for receiving a pair of axles, each said axle including a pair of wheel assemblies rotatably mounted thereon for rolling engagement with said track sections, a connecting element downwardly extending from said base portion, said connecting element being configured to connect said trolley to one of the wall panels, and at least one diverter element for selectively engaging said at least one guide member as each of said trolleys travels along said first path to route the supported wall panel along either said second or said third paths.

9. The track and trolley apparatus of claim 8, in which each of the track sections defines a channel, wherein:

each of said guide members includes a guide plate extending vertically downward from said upper plate portion of said switch assembly; and

said diverter element includes a vertically oriented blade portion laterally offset relative to the path defined by each track section, said blade for different ones of said trolley assemblies being offset at different lateral distances relative to each other for engaging said guide plate of selected ones of said plurality of guide members.

10. The track and trolley apparatus of claim 8, wherein:

a first switch assembly includes at least two guide members in which said guide plates have a first height;

a second switch assembly includes at least two guide members in which said guide plates have a second height different from said first height;

said blade portions of said diverter elements of selected ones of said trolley assemblies has a height sized to engage only said guide plates of said first switch assembly and not said guide plates of said second switch assembly; and

said blade portions for said diverter elements of remaining ones of said trolley assemblies have a height sized to engage said guide plates of both said first switch assembly and said second switch assembly.

11. An automatic track switching apparatus for a movable wall system having multiple wall panels movable along a track having multiple paths defined by multiple track sections between a predetermined stored arrangement and a predetermined wall forming arrangement, said apparatus comprising:

a switch assembly at a junction between track sections defining a first path along one track section and at least second and third paths along at least two other track sections branching from said first path, said switch assembly including an upper plate portion;

at least one guide member mounted on said upper plate portion of said switch assembly;

a lead trolley and a trailing trolley attached to each wall panel, each said trolley including a U-shaped channel having a transverse base portion and a pair of opposite upstanding sidewall portions, said sidewall portions defining a pair of axle bores therethrough for receiving a pair of axles, each said axle including a pair of wheel assemblies rotatably mounted thereon for rolling engagement with said track sections, a connecting element downwardly extending from said base portion, said connecting element being configured to connect said trolley to one of the wall panels;

a first diverter element attached to each said lead and trailing trolley laterally displaced from a centerline of said trolley in the direction of movement along said track for selective engagement with said at least one guide member to route the wall panel through said switch assembly in a predetermined manner to and from said wall forming arrangement; and

a second diverter element having an engagement member substantially coincident with said trolley centerline of each said trailing trolley, said engagement member of said second diverter element selectively engaging said at least one guide member to control the movement of the wall panel when the wall panel is moved to said predetermined stored arrangement.

12. The apparatus of claim 11 wherein said first diverter element of said lead trolley has a first height and said first diverter element of said trailing trolley has a second height different from said first height.

13. A multi-program track and trolley apparatus for a movable wall system having multiple wall panels supported by and movable along multiple paths defined by multiple track sections to predetermined configurations, the apparatus comprising:

a plurality of track sections;

a switch assembly at a junction between track sections defining a first path along one track section and at least second and third paths along at least two other track sections branching from said first path, said switch assembly including an upper plate portion;

a storage track connected to one of said track sections, said storage track including a first stacking section, a second stacking section, and a storage switch assembly, said first and second stacking sections each including at least a pair of parallel ones of said track sections;

at least two trolleys attached to and supporting each wall panel of the movable wall system, each of said trolleys including a trolley body rotatably supporting a pair of wheel assemblies for rolling engagement with said track sections, a connecting element extending from said trolley body, said connecting element being configured to connect said trolley to one of the wall panels, and at least one diverter element for selectively engaging said storage switch assembly so as to direct said trolley to one of said first and second stacking sections.